

What is claimed is:

1. A method of formulating a pharmaceutical composition comprising:  
comparing parameters of at least one pharmaceutical and a plurality of compounds,  
5 wherein the parameters comprise at least log(P) and molecular weight;  
choosing at least one model compound from the plurality of compounds for each  
pharmaceutical;  
providing at least one model compound-excipient formulation comprising at least  
one model compound and at least one excipient;  
10 measuring the diffusion of a model compound of at least one model compound-  
excipient formulation across at least one membrane;  
choosing a model compound-excipient formulation based on the measured model  
compound diffusion; and  
combining components comprising the at least one pharmaceutical and the  
15 excipient package of the chosen model compound-excipient formulation.
2. A method according to claim 1, wherein the model compound-excipient  
formulation is saturated in model compound.
- 20 3. A method according to claim 1, wherein the parameters further comprise the  
number of freely rotatable bonds.
4. A method according to claim 1, wherein the parameters further comprise the  
number of H-bond donors and acceptors.
- 25 5. A method according to claim 1, wherein the diffusion is measured utilizing a Franz  
cell.
6. A method according to claim 1, wherein at least one model compound comprises a  
30 dye.

7. A method according to claim 6, wherein measuring the diffusion of the model compound comprises fluorescence spectroscopy.
8. A method according to claim 6, wherein the diffusion of the model compound is simultaneously measured in a plurality of diffusion cells.
9. A method according to claim 8, wherein measuring the diffusion of the model compound comprises recording an image.
10. A method according to claim 1, wherein at least one model compound-excipient formulation comprises a plurality of different excipients.
11. A method according to claim 1, wherein diffusion is measured utilizing a chemical reaction.
12. A method according to claim 1, wherein at least one membrane comprises a synthetic polymer membrane.
13. A method according to claim 1, wherein at least one membrane comprises skin.
14. A method according to claim 1, wherein at least one membrane is selected from the group consisting of hairless mouse skin, snake skin, pig skin, and cadaver skin.
15. A method according to claim 1, wherein the parameters consist of log(P) and molecular weight.
16. A method according to claim 1, wherein at least one parameter of at least one model compound is calculated.
17. A method according to claim 1, wherein at least one parameter of at least one model compound is experimentally determined.

18. A method according to claim 1, wherein at least one parameter of the pharmaceutical is calculated.
- 5 19. A method according to claim 1, wherein at least one parameter of the pharmaceutical is experimentally determined.
20. A method according to claim 1, further comprising:  
contacting the pharmaceutical composition with the skin of a live mammal; and  
observing the result.
- 10 21. A method according to claim 1, further comprising incorporating the pharmaceutical composition into a transdermal delivery system.
22. A method according to claim 21, further comprising contacting the pharmaceutical  
15 composition with the skin of a live mammal and observing the result.
23. A method according to claim 21, wherein the transdermal delivery device comprises an adhesive patch.
- 20 24. A method according to claim 1, wherein prior to measuring diffusion of each model compound-excipient formulation, it is incorporated into an adhesive patch.
- 25 25. A method according to claim 1, wherein the model compound-excipient formulation comprises a plurality of model compounds.